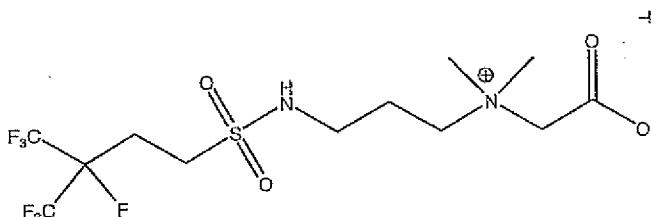


and the filtrate evaporated to dryness to provide the aminoxide of the R_F-surfactant.

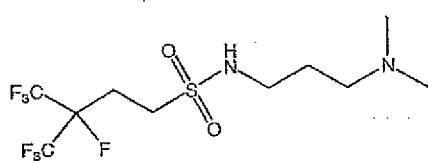
In accordance with another embodiment of the disclosure, processes are provided that can be used to alter the surface tension of a part of a system having at least two parts. The system can include liquid/solid systems, liquid/gas systems, gas/solid systems, and/or liquid/liquid systems. In an exemplary embodiment, the liquid/liquid systems can have one part that includes water and another part that includes a liquid that is relatively hydrophobic when compared to water. According to another example, the liquid/liquid system can contain one part that is relatively hydrophobic when compared to water and/or relatively hydrophobic when compared to another part of the system. R_F-surfactants can be used to alter the surface tension of a part of the system, for example, by adding the R_F-surfactant to the system.

R_F-surfactants may be used as relatively pure solutions or as mixtures with other components. For example, and by way of example only, the R_F-surfactants can be added to a system and the surface tension of the system determined by the Wilhelmy plate method and/or using the Kruss Tensiometer method.

The surface tensions of solutions of

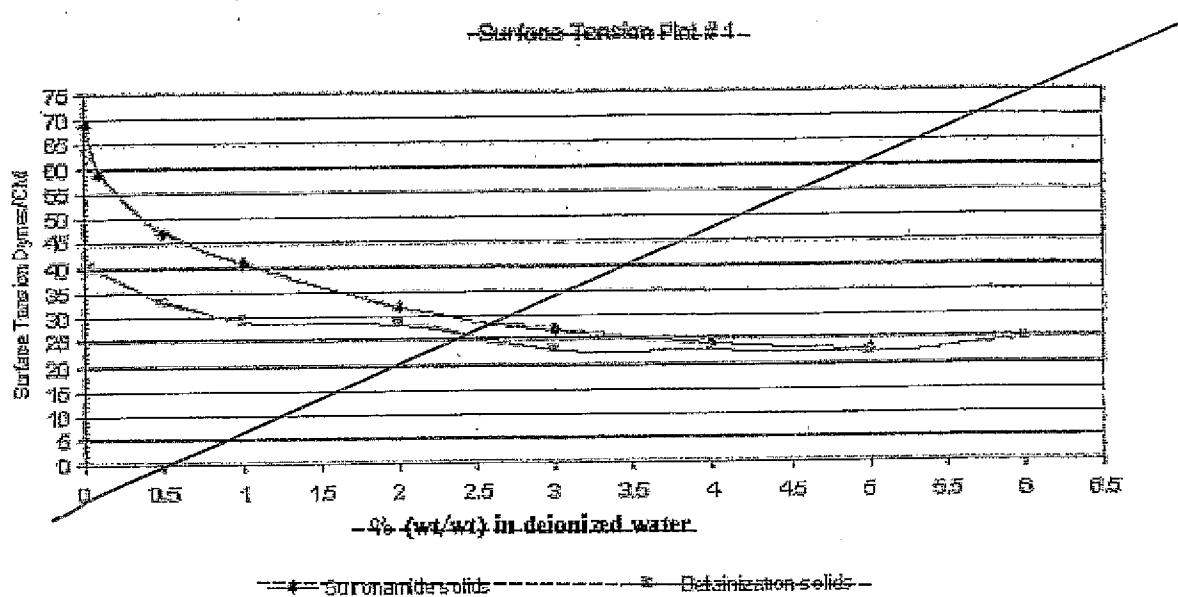


and,

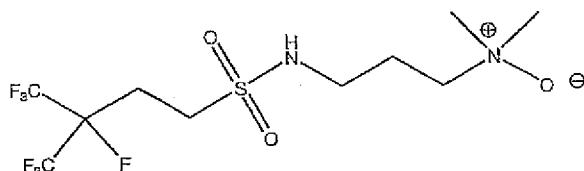


can be determined, according to the

concentrations in Plot #1 below, as shown in Fig. 9.

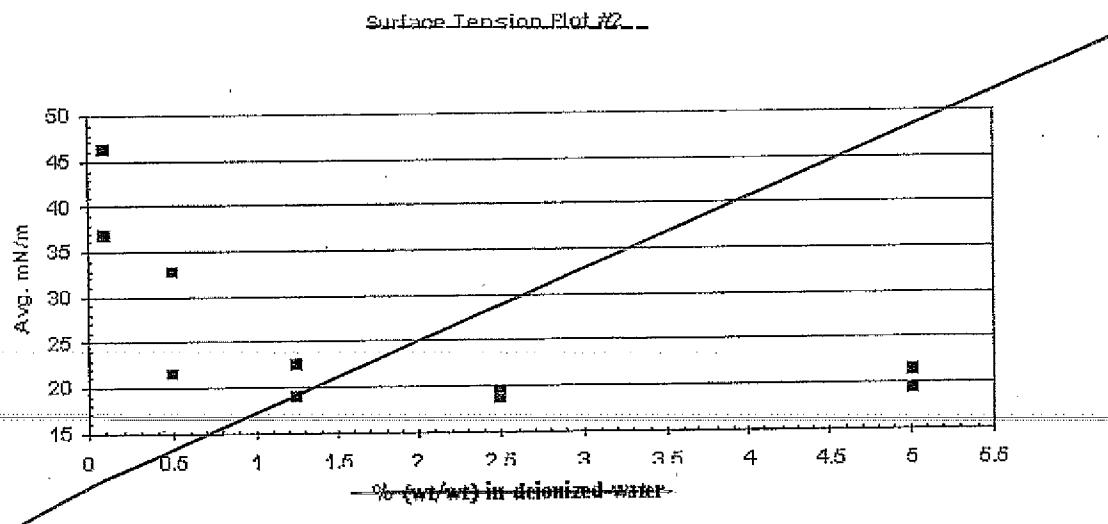


As another example, the surface tensions of

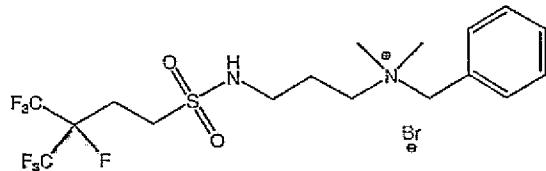


at pH 7[■] and pH 5[■] various

concentrations can be determined and the data as indicated in Plot #2 below. as shown in Fig.10.

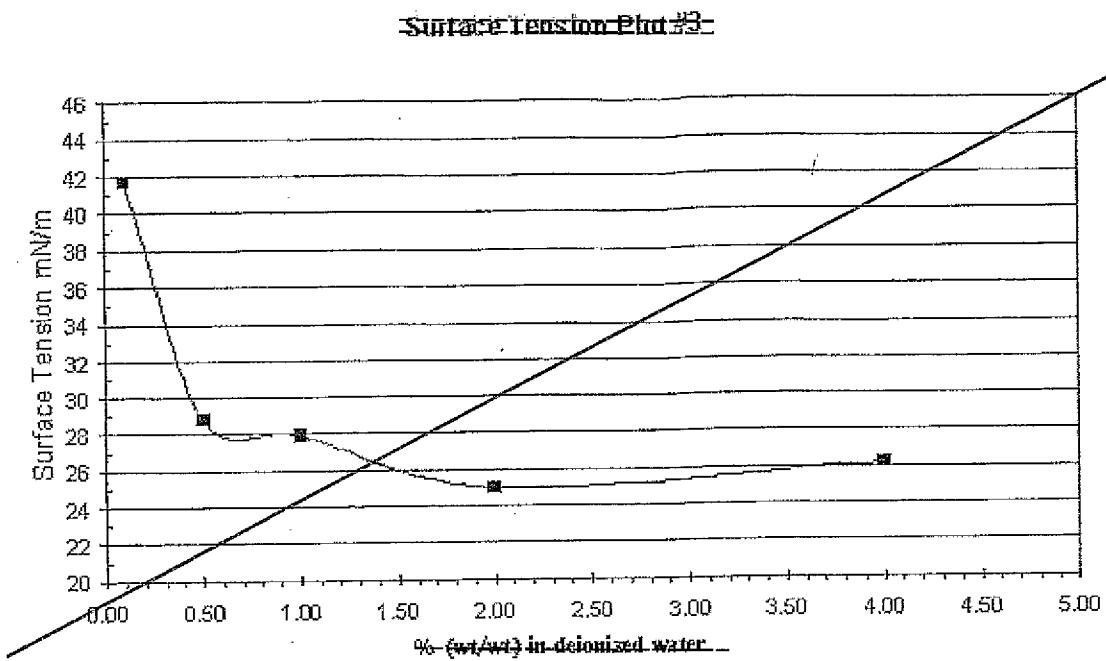


5
As another example, the surface tensions of

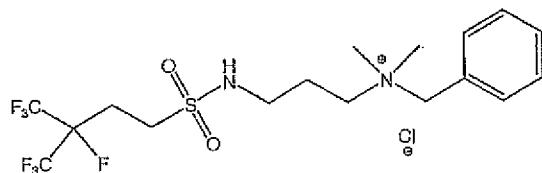


at various concentrations can be determined and

the data as indicated in the Plot #3 below. as shown in Fig.11.

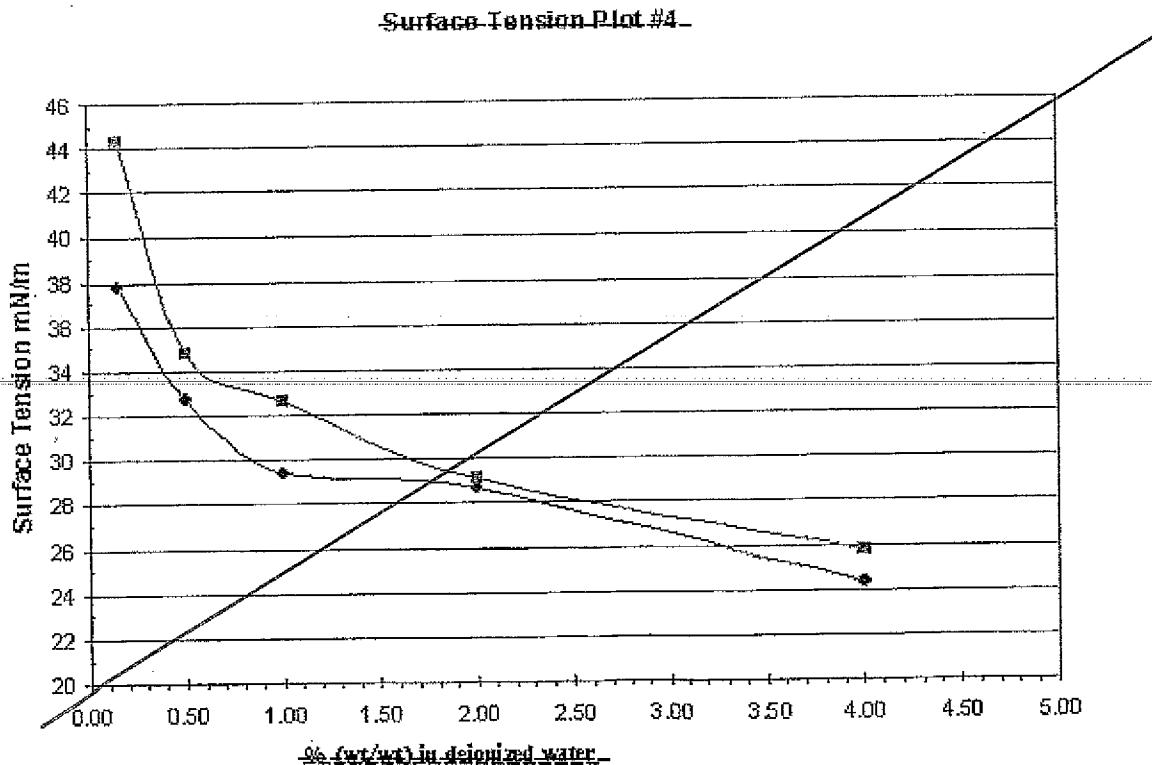


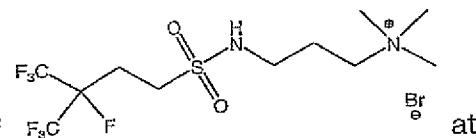
As another example, the surface tensions of



at pH 6.8 and pH 4.0 can be

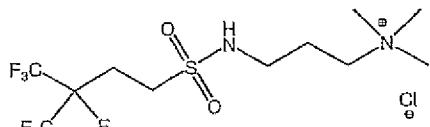
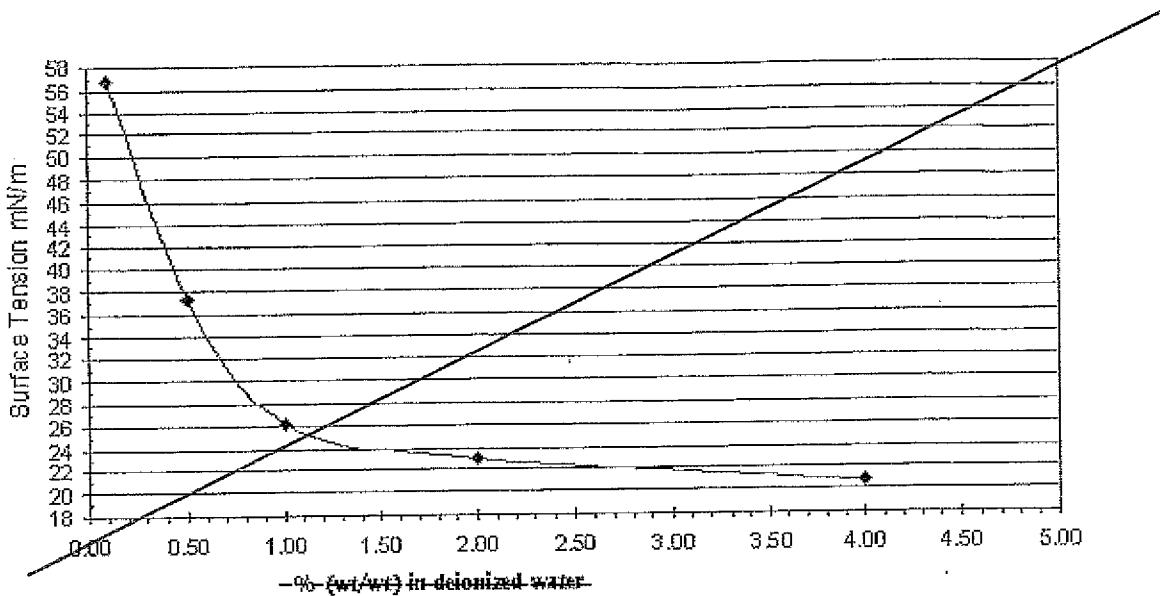
determined and the data as indicated in Plot #4 below--as shown in Fig. 12.





As another example, the surface tensions of F_3C at various concentrations can be determined and the data as indicated in Plot #5 below, as shown in Fig. 13.

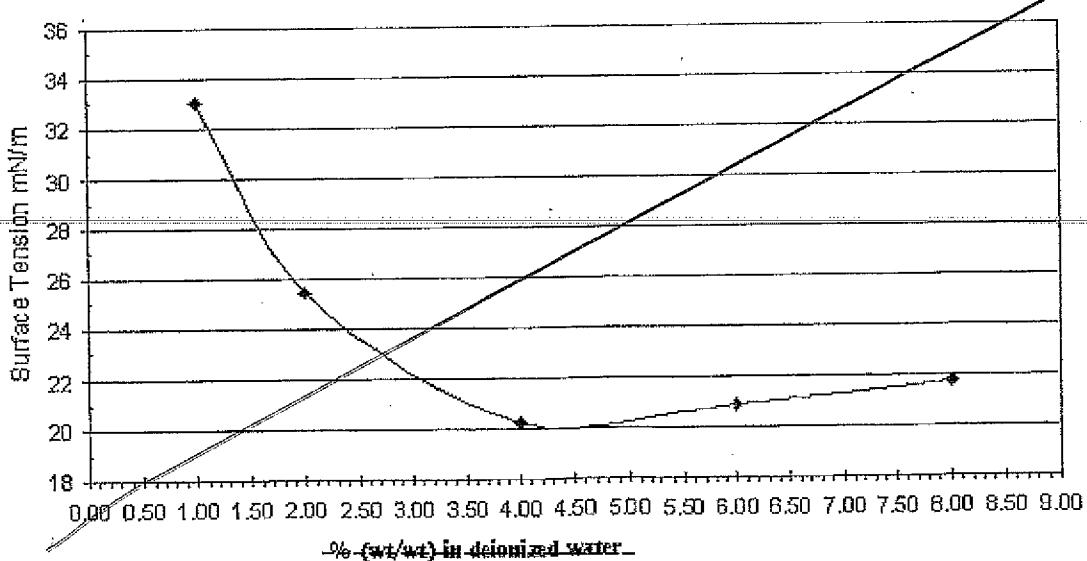
-Surface Tension Plot #5-

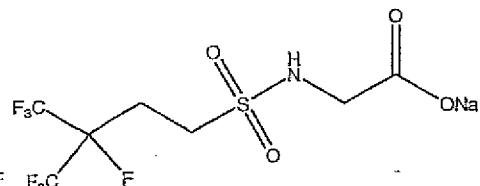


As another example, the surface tensions of $\text{F}_3\text{C}-\text{F}$ at

5 various concentrations can be determined and the data as indicated in Plot #6 below,
as shown in Fig. 14.

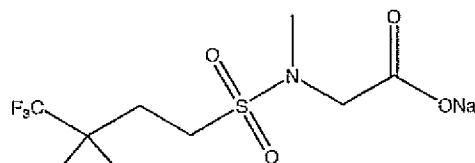
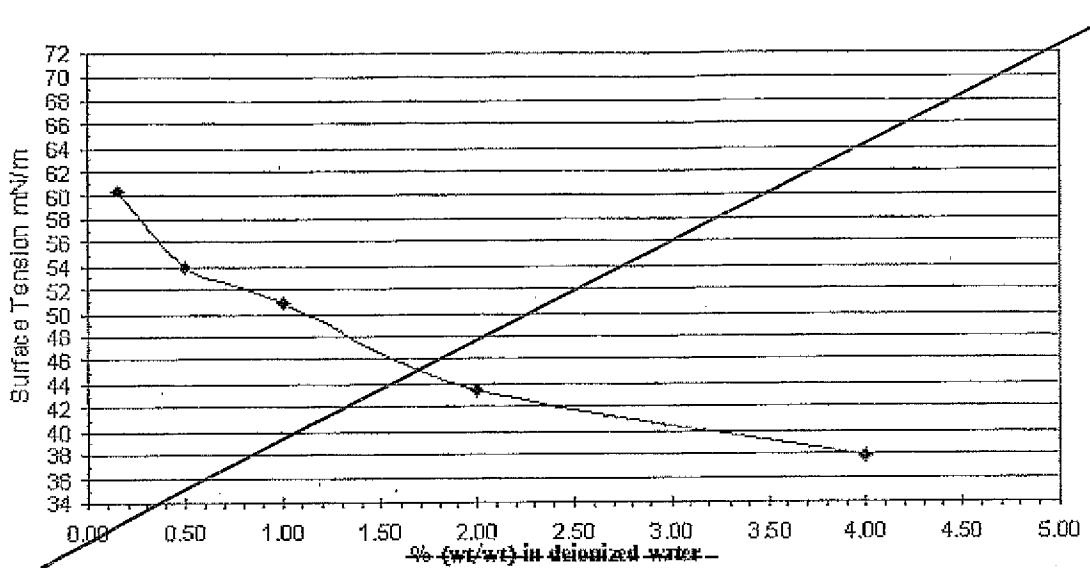
-Surface Tension Plot #6-



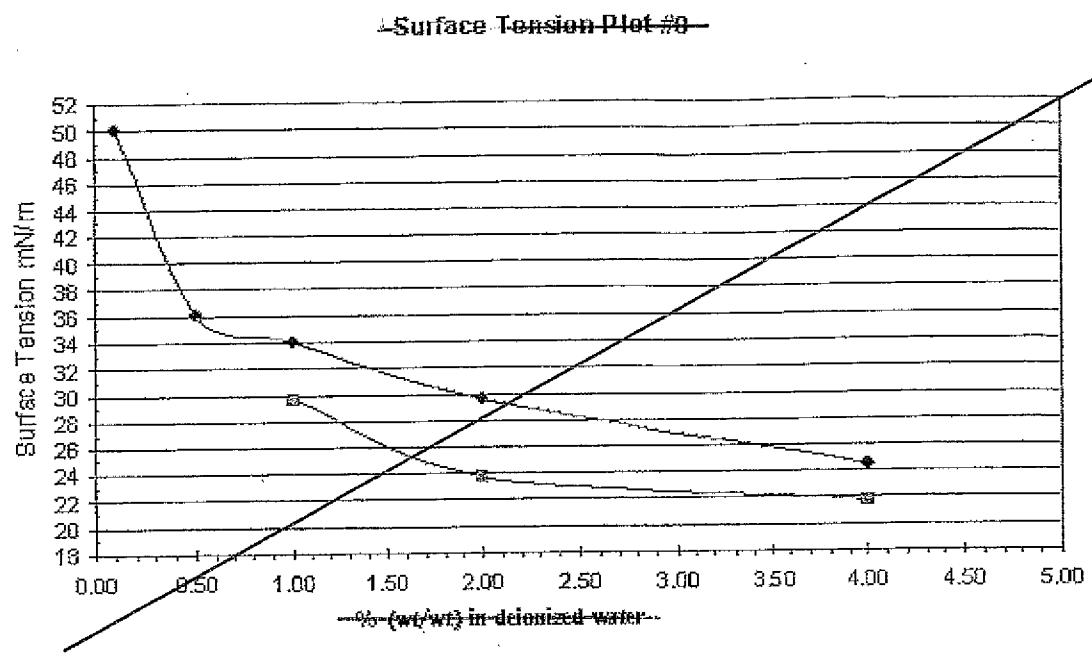


As another example, the surface tensions of FeCl_3 at various concentrations can be determined and the data as indicated in Plot #7 below, as shown in Fig. 15.

-Surface Tension Plot #7



As another example, the surface tensions of $\text{F}_3\text{C}-\text{F}$ at pH 6.2-6.8⁴⁴ and pH 5.0⁴⁵ can be determined and the data as indicated in Plot #8 below, as shown in Fig. 16



Surface tensions and corresponding concentrations of R_F-surfactants are denoted in Table 6 below.